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09/440,260	11/15/1999	ARTHUR JOST	GEN-067	2733

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ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 03/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/440,260	JOST ET AL.
	Examiner	Art Unit
	Andrew Y Koenig	2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 January 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-43</u> is/are pending in the application.

    4a) Of the above claim(s) <u>37-43</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-36</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1-43 have been considered but are

moot in view of the new ground(s) of rejection.

Election/Restrictions

2.   Newly submitted claims 37-43 are directed to an invention that is independent or

distinct from the invention originally claimed for the following reasons:

        The original set of claims are directed to locating a set top terminal within a cable

televisions system.

        Claims 37-43 are directed to registering set top terminals within a cable television

system using a registration message.

        Since applicant has received an action on the merits for the originally presented

invention, this invention has been constructively elected by original presentation for

prosecution on the merits. Accordingly, claims 37-43 are withdrawn from consideration

as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP §

821.03.

Claim Objections

3.   Claim 27 is objected to because of the following informalities: Claim 27 recites

"once connected top" which as best understood by the examiner should be "once

connected to." Further, claim 27 recites "transmits a signal said system controller"

which as best understood by the examiner should be "transmits a signal to said system

controller." Appropriate correction is required.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1-3, 7-13, 16-24, and 26-27 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent 5,574,495 to Caporizzo in view of U.S. Patent 6,351,773

to Filjolek et al.

Regarding claims 1, 11, and 20, Caporizzo teaches a cable television system

which assesses the noise in the channels and notifies the headend of problems

(abstract). Caporizzo teaches a headend (claimed system controller), a population of

terminals, and a plurality of upstream and downstream plants (fig. 1). Furthermore, the

system of Caporizzo can locate set top terminals within a system by maintaining a

system topology of devices (col. 6, II. 4-13). Caporizzo teaches sending a message

containing bit error rate (BER) information to the headend (col. 5, II. 37-39), which reads

on sending a first message to the system controller from a set top terminal.

Furthermore, by using the CATV network topology, the system can determine the

upstream plant and the downstream plant associated with the terminal (col. 6, II. 4-13).

The examiner notes that the identification is 217784, where 2 is the trunk number, 1 is

the line extender and 7784 is the set top terminal. Accordingly, the location of the set top terminal within the system comprises an identification of the upstream and downstream plants.

Further regarding claim 1, Caporizzo is silent on a terminal that has not communicated with the system controller previously. Fijolek teaches a device during initialization transmitting a discover message to the headend (col. 23, ll. 60-65), which reads on a terminal that has not communicated with a system controller previously in that the initialization process is used for devices whenever connected to the network without any transmission information of prior connections. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by transmitting a message to the headend during initialization as taught by Fijolek in order to identify the user device at the headend and determine the appropriate services thereby enabling the identification of the location of the device (col. 17, ll. 49-55).

Further regarding claim 11, Caporizzo is silent on a location of which terminal has not been previously obtained by the system controller. Fijolek teaches identifying the location of a device (col. 17, ll. 49-55), which is newly introduced into the network, which equates to not previously obtained by the system controller. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by identifying the location of terminal that has not been previously obtained by the system controller as taught by Fijolek in order to provide dynamic changes to the resources of the network.

Further regarding claim 20, Caporizzo is silent on wherein a location of a set top within the system was previously unknown. Fijolek teaches receiving the location information in the MAC layer of messages (col. 17, ll. 49-55), which are clearly unknown when the device is plugged into the network but has not yet initiated the registration process. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by on locating a device wherein a location of the device within the system was previously unknown as taught by Fijolek in order to efficiently identify a location thereby enabling the headend to resolve network problems.

Regarding claims 2, 12, and 21, Caporizzo teaches transmitting a request message from the headend (claimed system controller) to a set top terminal (col. 5, ll. 4-11), accordingly, the set top terminal responds to the request message (col. 5, ll. 37-48).

Regarding claim 3, Caporizzo teaches authorizing access to specific services and channels (col. 3, ll. 3-5), which reads on assigning attributes for set top terminals. The examiner notes that by assigning characteristics to a particular set top terminal, the set top terminal has a location. Accordingly, Caporizzo teaches, "assigning attributes for said set top terminal based on said location of said set top terminal" as claimed. However, Caporizzo is silent on one or more different attributes assigned to terminals in different locations. Fijolek teaches assigning attributes to devices, where the devices have different locations (col. 3, ll. 25-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by

having one or more different attributes assigned to terminals in different locations as taught by Fijolek in order to provide a plurality of services to users in different locations.

Regarding claims 13, and 22, Caporizzo teaches authorizing access to specific services and channels (col. 3, II. 3-5), which reads on assigning attributes for set top terminals. The examiner notes that by assigning characteristics to a particular set top terminal, the set top terminal has a location. Accordingly, Caporizzo teaches, "assigning attributes for said set top terminal based on said location of said set top terminal" as claimed.

Regarding claims 7 and 16, Caporizzo teaches a demand from the set top terminal (col. 5, II. 4-11), which reads on a set top terminal transmitting a message without receiving a request message from the controller.

Regarding claims 8 and 17, Caporizzo is teaches a subscriber demand initiating the data accumulation procedure, which in turn transmits the first message (col. 5, II. 5-8).

Regarding claims 9 and 18, Caporizzo teaches identifying a trunk and line extender along with the set top terminal in order to identify the a group of malfunctioning devices (col. 6, II. 5-13).

Regarding claims 10 and 19, Caporizzo teaches using a phone line to send the information the headend (claimed controller) (col. 5, II. 43-48). By completing this action, the system of Caporizzo clearly must call use a telephone network that in turn reads on the claimed upstream plant.

Regarding claims 23 and 26, Caporizzo teaches a set top terminal demanding when the terminal has been added to the system, but is silent on performing an action once connected to the network. Fijolek teaches transmitting a DHCPDISCOVER message in order to identify to the CMTS that a new device is on the network (col. 16, ll. 20-33), which reads on performing an action once connected to the network is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art to modify Caporizzo by perform an action once connected to the network as taught by Fijolek in order to identify the device to the network without prior notice to the operator thereby enabling the system to efficiently add devices to the network

Regarding claim 24, Caporizzo teaches providing physical and logical topology information for the system based on the location information of the terminal (col. 6, 4-13).

Regarding claim 27, the combination of Caporizzo and Filjolek teaches the headend receiving a signal from a terminal and determining the upstream and downstream plants associated with the terminal (col. 5, ll. 37-39) and Caporizzo teaches a downstream plant associated with the upstream plant (col. 6, ll. 4-13).

6.   Claims 4, 5, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,574,495 to Caporizzo and U.S. Patent 6,351,773 to Filjolek et al. in view of U.S. Patent 6,463,588 to Jenkins et al. and U.S. Patent 6,425,132 to Chappell.

Regarding claims 4 and 14, Caporizzo teaches associating attributes to the set top terminals, but is silent on associating attributes with each upstream and downstream

plant. Jenkins teaches associating a status for end user devices in the downstream

data path (col. 2, ll. 22-37, col. 2-3, ll. 56-6). In the upstream direction, Chappell

teaches identifying a node, with a node identifier (col. 5-6, ll. 65-1). Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made

to modify Caporizzo by associating attributes with both the downstream and upstream

plants as taught by Jenkins and Chappell in order to analyze the network and improve

the efficiency of the system.

Regarding claim 5, Caporizzo is silent on associating attributes for the terminal

based on the upstream path. Official Notice is taken that associating attributes for the

terminal based on the upstream path is well known. Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify

Caporizzo by associating attributes based on the upstream path in order to adjust the

power, timing and other transmission characteristics for the set top terminal thereby

transmitting data more efficiently.

7.   Claims 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

U.S. Patent 5,574,495 to Caporizzo and U.S. Patent 6,351,773 to Filjolek et al. in view

of U.S. Patent 5,563,883 to Cheng.

Regarding claims 6 and 15, Caporizzo teaches polling from both the headend or

the set top terminal either simultaneously or to addressed terminals (col. 5, ll. 4-11). By

polling a particular set top terminal, the terminal clearly has a location. However,

Caporizzo is silent on teaching selecting terminals to minimize collisions. Cheng

teaches grouping terminals in order to minimize collisions (col. 11, ll. 9-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by grouping terminals to minimize collisions as taught by Cheng in order to provide a more reliable upstream data path.

8.   Claims 25, 28-30, 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,574,495 to Caporizzo and U.S. Patent 6,351,773 to Filjolek et al. in view of "All-format decoders and set-top boxes" to Henderson (hereinafter Henderson).

Regarding claim 25, Caporizzo is silent on purchasing a set top terminal. Henderson teaches purchasing a set top terminal (pg. 4, para. 1), which are clearly purchased at a retail outlet, given the broadest reasonable interpretation in the art of a commercial market for goods selling retail directed towards consumers in that consumers are able to purchase the receivers. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo to purchase a set top terminal through a retail outlet as taught by Henderson in order to enable a user to integrate a device into the network thereby gaining functionality and services available on the network.

Regarding claim 28, the limitations of claim 28 have been addressed in the discussion of claims 1, 25, and 26. Claim 28 introduces the limitation of installing the terminal. Official Notice is taken that installing a terminal is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Caporizzo by installing a terminal in order to enable the user to use their devices without a service person.

Regarding claims 29, 30, and 34-36, the limitations of claims 29 and 30 have been addressed in the discussion of claims 2, 3, 7-9, respectively.

9.   Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,574,495 to Caporizzo, U.S. Patent 6,351,773 to Filjolek et al., and "All-format decoders and set-top boxes" to Henderson (hereinafter Henderson) in view of U.S. Patent 6,463,588 to Jenkins et al. and U.S. Patent 6,425,132 to Chappell.

Regarding claim 31 Caporizzo teaches associating attributes to the set top terminals, but is silent on associating attributes with each upstream and downstream plant. Jenkins teaches associating a status for end user devices in the downstream data path (col. 2, ll. 22-37, col. 2-3, ll. 56-6). In the upstream direction, Chappell teaches identifying a node, with a node identifier (col. 5-6, ll. 65-1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caporizzo by associating attributes with both the downstream and upstream plants as taught by Jenkins and Chappell in order to analyze the network and improve the efficiency of the system.

Regarding claim 32, Caporizzo is silent on associating attributes for the terminal based on the upstream path. Official Notice is taken that associating attributes for the terminal based on the upstream path is well known. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify

Caporizzo by associating attributes based on the upstream path in order to adjust the

power, timing and other transmission characteristics for the set top terminal thereby

transmitting data more efficiently.

10.   Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent 5,574,495 to Caporizzo, U.S. Patent 6,351,773 to Filjolek et al., and "All-format

decoders and set-top boxes" to Henderson (hereinafter Henderson) in view of U.S.

Patent 5,563,883 to Cheng.

Regarding claim 33, Caporizzo teaches polling from both the headend or the set

top terminal either simultaneously or to addressed terminals (col. 5, ll. 4-11). By polling

a particular set top terminal, the terminal clearly has a location. However, Caporizzo is

silent on teaching selecting terminals to minimize collisions. Cheng teaches grouping

terminals in order to minimize collisions (col. 11, ll. 9-14). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify

Caporizzo by grouping terminals to minimize collisions as taught by Cheng in order to

provide a more reliable upstream data path.

Conclusion

11.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

U.S. Patent 6,603,758 to Schmuelling et al. teaches a set top box equipped with

an internal cable modem (col. 2, ll. 55-62).

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Andrew Y Koenig whose telephone number is (703)

306-0399. The examiner can normally be reached on M-Th (7:30 - 6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Andrew Faile can be reached on (703) 305-4380. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

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